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**WE CLAIM:**

1. A use of an effective amount of an agent that can modulate an IgA receptor on a mesenchymal cell for the manufacture of a medicament to  
5 modulate the inflammatory responses of a mesenchymal cell.
2. A use according to claim 1 to inhibit the inflammatory responses of a mesenchymal cell.
- 10 3. A use according to claim 2 to treat an inflammatory condition caused by an IgA binding to an IgA receptor on a mesenchymal cell.
4. A use according to claim 3 wherein the inflammatory condition is arthritis.  
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5. A use according to claim 4 wherein the arthritides is selected from rheumatoid arthritis, osteoarthritis or a spondyloarthropathy.
6. A use according to claim 3 wherein the inflammatory condition is  
20 selected from Crohn's disease, ulcerative colitis, Behcet's disease, Sjogren's disease and a vasculitis.
7. A use according to claim 3 wherein the condition is asthma, chronic bronchitis, acute bronchitis, bronchial hyperreactivity, chronic obstructive  
25 pulmonary disease, emphysema, interstitial lung disease, bronchiectasis or airway remodelling.
8. A use of an effective amount of an agent in the manufacture of a medicament that can modulate an IgA receptor on a mesenchymal cell to  
30 modulate cytosolic calcium signalling in a mesenchymal cell.

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9. A use according to claim 8 comprising administering an effective amount of an IgA receptor antagonist to prevent or inhibit intracellular calcium signalling in a mesenchymal cell.
- 5 10. A use of an effective amount of an IgA receptor antagonist in the manufacture of a medicament to inhibit the contraction of a mesenchymal cell.
11. A use of an effective amount of an IgA receptor antagonist in the manufacture of a medicament to inhibit the production of inflammatory  
10 mediators or growth factors.
12. A use according to any one of claims 1 to 11 wherein the IgA receptor is pIgR or Fc $\alpha$ R.
- 15 13. A use according to any one of claims 2 to 12 wherein the IgA receptor antagonist inhibits the binding of pIgA to pIgR.
14. A use according to any one of claims 2 to 12 wherein the IgA receptor antagonist inhibits the binding of pIgA to Fc $\alpha$ R.  
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15. A use according to any one of claims 2 to 14 wherein the IgA receptor antagonist is a scFv that binds pIgR or Fc $\alpha$ R.
16. A use according to any one of claims 1 to 15 wherein the mesenchymal  
25 cell is a smooth muscle cell.
17. A use according to claim 16 wherein the cell is an airway smooth muscle cell.
- 30 18. A use according to any one of claims 1 to 15 wherein the mesenchymal cell is a fibroblast.

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19. A use according to claim 18 wherein the cell is a synovial fibroblast.
20. A method of delivering a substance to a mesenchymal cell comprising administering to an animal or cell in need thereof an effective amount of a  
5 conjugate comprising the substance coupled to an IgA receptor ligand.
21. A method according to claim 20 wherein the IgA receptor is pIgR or Fc $\alpha$ R.
- 10 22. A method according to claim 20 or 21 wherein the mesenchymal cell is a fibroblast or smooth muscle cell.
23. A method of detecting a condition associated with the activation of a mesenchymal IgA receptor on a mesenchymal cell comprising assaying a  
15 tissue sample or cells from the sample for (a) a nucleic acid molecule encoding an IgA receptor or a fragment thereof or (b) an IgA receptor or a fragment thereof.
24. A method according to claim 23 wherein the IgA receptor is pIgR or  
20 Fc $\alpha$ R.
25. A method according to claim 23 or 24 wherein the condition is an inflammatory condition selected from arthritides, including rheumatoid arthritis, osteoarthritis, spondyloarthropathies, Crohn's disease, ulcerative colitis,  
25 Behcet's disease, Sjogren's disease and vasculitides.
26. A method according to claim 23 or 24 wherein the condition is asthma, chronic bronchitis, acute bronchitis, bronchial hyperreactivity, chronic obstructive pulmonary disease, emphysema, interstitial lung disease,  
30 bronchiectasis or airway remodelling.

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27. A method of detecting IgA mediated bronchial hyperreactivity comprising:
- (a) administering an IgA receptor agonist to a patient; and
  - (b) detecting bronchoconstriction in the patient wherein an increase
- 5 in bronchoconstriction as compared to a control indicates that the patient has IgA-mediated hyperreactivity.
28. A method according to claim 27 wherein bronchoconstriction is measured by listening for wheezing on chest auscultation.
- 10 29. A method according to claim 27 wherein bronchoconstriction is measured by measuring a reduced forced expiratory volume at 1 second (FEV1).
- 15 30. A method of detecting IgA-mediated bronchial hyperreactivity comprising:
- (a) administering an IgA-receptor agonist to a patient and detecting bronchoconstriction; and
  - (b) administering an IgA receptor agonist followed by a non-specific
- 20 bronchoconstricting agent to the patient and detecting bronchoconstriction at a lower dose than when the nonspecific agent is administered alone wherein bronchoconstriction in step (a) and/or bronchoconstriction induced at a lower dose of the nonspecific agent administered without the IgA receptor agonist in step (b) would indicate that the patient has IgA-mediated bronchial
- 25 hyperreactivity.
31. A method according to claim 30 wherein the non-specific bronchoconstricting agent is methacholine or histamine.
- 30 32. A method according to claim 30 or 31 wherein bronchoconstriction is detected with a pulmonary function test such as clinical spirometry [=measurement of FEV1 and FVC].